

City Hall

Green Roof

General Information

- Complete green roof retrofit combined with a re-roof of the upper roof area.
- First civic building in BC to receive a complete green roof retrofit to an existing building. First green roof in Campbell River.
- Combination extensive (upper area) and intensive (courtyard area) green roof.



- Vegetation includes locally occurring, drought tolerant species which require minimal watering and maintenance.
- Roof meets the LEED requirements for the 'Heat Island Reduction' roof credit (vegetated area > 50% of roof surface).
- Demonstrates the City's commitment to carbon neutrality under the BC Climate Action Charter and supports Council's Green City Strategy.

Funding

- 100% funded through Federal Gas Tax Dollars (Community Works Fund). This funding must be applied to environmentally sustainable municipal infrastructure projects that contribute to reduced GHG emissions, cleaner water, or cleaner air. This project meets all three criteria.
- No draw on general taxation.



Features

Upper roof modeled after rocky bluffs in the coastal range including those visible on Quadra Island. Features include:

- Banded patterns of plantings using 15,000 sedum plugs and 1,200 sq ft of wildflowers including various stonecrop species, alumroot, coastal strawberry, wooly sunflower, and sea thrift.
- Stone pathways allowing access to all areas of the roof.
- Courtyard roof designed to mimic a Japanese garden recognizing the City's sister city of Ishikari, Japan.

Courtyard



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- Converts previously unoccupied, visually unappealing outdoor space into usable amenity area.

- Over 1,100 shrubs, succulents, ferns, and wildflowers including oregon grape, stonecrop, tiger lily, coastal strawberry, deer fern, salal, licorice fern, sword fern, clematis, and honeysuckle.
- Two Japanese maples.
- Wood deck with seating for 15.
- Overhead pergola for shelter.



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Rooftop



Benefits

COST/ENERGY SAVINGS

- Reduced replacement cost. Projected to double the life of the underlying conventional roof from 25 to 50 years by protecting the roofing membrane from UV radiation, temperature variations, and physical damage.
- Increased building insulation from the vegetation layer reduces the need for heating and cooling by up to 25%.

STORMWATER RUNOFF RETENTION

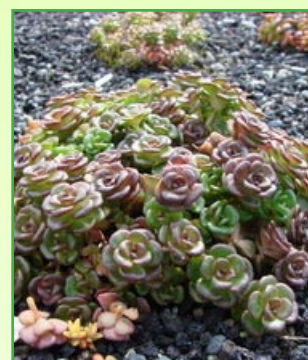
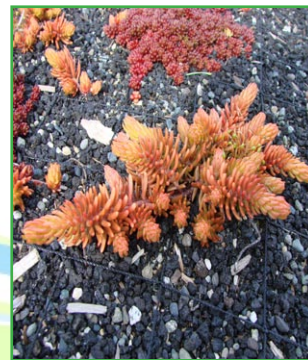
- Green roofs retain stormwater through the vegetation and growing medium which store rainwater and then release it through evaporation. Total reduction in runoff volume is estimated at 20% (up to 100% in dry season, 12-65% in wet season).

CO₂ & AIRBORNE PARTICULATE REMOVAL

- Anticipated reduction of 2 tonnes CO₂e per year from reduced heating costs.
- Rooftop plants absorb gaseous pollutants such as CO₂ through photosynthesis and sequester them in their leaves. Although carbon sequestration measurement for green roofs is a relatively new science and research on green roof CO₂ uptake is unknown at this time, species chosen are known to be very efficient at removing CO₂ from the atmosphere compared to other drought tolerant plants.
- Rooftop plants will filter out fine airborne particulate matter; approximately 500 kg per year.

Other

- Reduces the Urban Heat Island Effect by absorbing solar radiation rather than reflecting it into surrounding areas.
- Creation of habitat for fauna and flora. Large area of undisturbed ground inaccessible to human intervention.
- Improved aesthetics for neighbouring properties. Rooftop is visible from adjacent roadway.
- Project included installation of perimeter guardrails and access stairs, improving safety for City staff and contractors servicing mechanical and wireless equipment on roof. The green roof itself will require minimal annual maintenance.



For more information contact:

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